5-1-1 Programs

Updated October 17, 2016

1.1 Originator

Systems Planning & Operations - Planning

1.2 Introduction

WisDOT has several improvement programs. The ones you're most likely to encounter are listed below:

1) 3R - The 3R Program includes all non-interstate state highways and structures--no local roads or county highways.
   - The 3R Program is managed at the regional level. The region is given a financial allocation they are responsible to manage each year over a 6-year timeframe.
   - Projects are set up based on feedback from roadway and bridge maintenance staff, municipalities, and the public. There is an effort to distribute projects equitably throughout the 16 counties in the Southwest Region.
2) Majors - The Majors Program includes projects that are recommended by the Transportation Projects Commission (TPC) and enumerated in the state budget.
   - The Majors Program is managed on a statewide basis, not a region basis.
3) Large Bridge - The Large Bridge program includes structure projects that are for bridges larger than 40,000 square feet in deck area or cost more than 10% of the region's allocation to rehabilitate.
   - The Large Bridge Program is managed on a statewide basis, not a region basis.
4) Backbone - The Backbone Program includes all interstate highways and certain other multi-lane highways.
   - The Backbone Program is managed on a statewide basis, not a region basis.
   - Projects are prioritized based on needs statewide. Each region suggests projects but does not control when/if a project is approved for inclusion in the program. Also, because the program is managed statewide, certain project revisions will take longer because approval from the Bureau of State Highway Programs (BSHP) and the Backbone Committee is required.
5) Highway Safety Improvement Program (HSIP) – All improvement projects address safety in general, but the HSIP program may provide funding for qualifying safety treatments at high crash locations. Locations can be either a stand-alone project or incorporated into a larger improvement project as a category.
   - The HSIP Program is managed on a statewide basis so projects and any subsequent project revisions must be approved by the Bureau of State Highway Programs (BSHP).
   - Locations become HSIP projects through an analysis and application process administered by the Region's Safety Engineers.

Some of the above programs can mix within a project; others cannot. Backbone, 3R, and HSIP are all part of Legislative Subprogram 303 so they could be used to fund different categories within a project. Majors, on the other hand, are in Legislative Subprogram 302 so Majors funding cannot mix on a project with 3R, Backbone, or HSIP funding.

You don't have to know which program your project is in. Simply contact the programming engineers and the appropriate person will assist you.

1.3 Process

N/A

1.4 References

Program Management Manual (PMM) Chapter 3 - *link available to internal staff only*

FDM 3-5 Concept Definition

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5-1-5 Project Initiation Process *date*

5.1 Originator

Systems Planning & Operations - Planning

5.2 Introduction

This section has not yet been written.

5.3 Process

5.4 References

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5-1-10 Programming Projects *Updated April 14, 2021*

10.1 Originator

Systems Planning & Operations - Planning

10.2 Introduction

During the Project Initiation Phase, the programming engineer creates a project by setting the initial scope, schedule, and budget. See FDM 3-1-1 for definition of phases.

10.3 Process

The following are steps the programming engineer goes through to program a project:

- Setting the Program Level Scope ..... SWIG 5-1-10.3.1
- Setting the Program Level Schedule..... SWIG 5-1-10.3.2
- Setting the Program Level Budget ..... SWIG 5-1-10.3.3

10.3.1 Setting the Program Level Scope

This section has not yet been written. Incorporate the Highway Improvement Type discussion here.

10.3.2 Setting the Program Level Schedule

Programming's goal is to initiate projects early enough to allow adequate time for delivery (including meeting advanceable schedules), but not have projects open so long as to sit inactive or violate the 10-year rule.

To help meet this goal, SWR Programming will transition the 3R Program toward developing projects on an 8-Year program instead of a 6-Year program. This means projects will be programmed sooner allowing for more project development time. The Backbone program is currently set up to be an 8-Year program for Reconstruction and Pavement Replacement projects and a 7-Year program for all other types of projects. The Highway Safety Improvement Program (HSIP) and the Majors Program are not 8-Year programs.

Several factors are considered when selecting a desirable LET fiscal year (FY) including:

- Which fiscal years have funding available?
- Are there conflicts with other area projects to avoid?
- Is real estate acquisition anticipated? See SWIG 5-1-10.3.2.1 for discussion.
- Is this project a candidate for advancement? See SWIG 5-1-10.3.2.2 for discussion.

A let month is selected based on a number of factors as well, including:

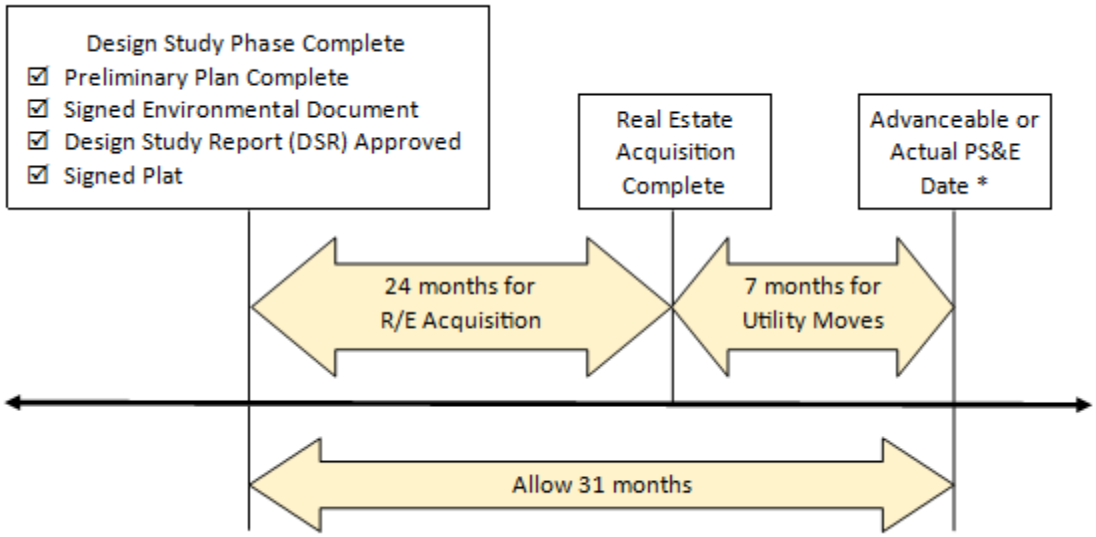
- Optimizing the Project Letting Process (PLP). WisDOT has statewide goals for the dollar amount of projects for each letting. The Division of Transportation Investment Management's (DTIM) Program Finance Section (PFS) updates the Statewide PLP Charts monthly for reference (*link available to internal staff only*).
- Does the project require new bridge girders? If so, let in December or earlier to allow time for

fabrication.

- How much time will construction take? Does work need to begin early in the spring or can it be let later in the year and still be completed in the season?
- Is any of the work weather-sensitive such as polymer deck overlays?
- Fact that commercial HMA and concrete plants usually don't open until mid-spring.

10.3.2.1 Real Estate and Utility Considerations (Implementing 24/7)

Two activities that can have the greatest impact on the design delivery schedule include right of way acquisition and utility relocations. As a result, the Southwest Region (SWR) has adopted the "24/7" scheduling philosophy as standard practice to build desirable time frames into all projects requiring real estate acquisition regardless of how much and what type of real estate is being acquired. This philosophy is designed to allow two full years for real estate acquisition activities plus seven months for utility relocations for a total of 31 months from the Design Study Report approval to the scheduled PS&E date (see Figure 10.1 below). All projects that may require new real estate should initially be set up in accordance with the "24/7" philosophy. Note the scheduled PS&E date is the advanceable PS&E date for projects on an advanceable schedule.



*Schedule PS&E date is the advanceable PS&E date for projects on advanceable schedules.

Figure 10.1 – "24/7" Process Flowchart

Exceptions to providing "24/7" scheduling will be made on a case by case basis when the detailed schedules are developed and approved by all sections during the Project Definition Phase. See SWIG 5-5-15 for information on this process.

HSIP projects will typically be exempt from the "24/7" scheduling practice even for the program level schedule because the HSIP program is developed as a four-year program so safety treatments can be deployed as soon as possible.

10.3.2.2 Projects on Advanceable Schedules

The Southwest Region has adopted the philosophy of delivering as many projects as possible on advanceable schedules as a standard practice.

Advanceable projects are beneficial for several reasons:

- Wisconsin Statute 84.01(33) requires the department establish and maintain an inventory of complete designs for highway projects.
- Beyond the statutory requirement, maintaining an inventory of advanceable projects serves other mission-critical purposes including:
  - Program Stability: If a scheduled project is deferred to another fiscal year, a project or projects of similar size can be moved forward to use that available funding.
  - Availability of Extraordinary or Additional Funding: If the department receives additional funding or if let savings accrue in the fiscal year, this inventory of plans on the shelf allows the department to meet more system needs.

Projects will generally be targeted for delivery one fiscal year earlier than their actual schedule. Projects certainly can be advanceable by more than one year for added flexibility. However, be aware that placing projects on the shelf for too long is likely to create additional challenges with changes in existing conditions, project inactivity, the 10-year rule, and obtaining Transportation Improvement Program (TIP) numbers (if needed).

The inventory of projects on the shelf will ideally be a mix of project types and sizes to provide maximum flexibility to meet program needs.

Projects designed/delivered on advanceable schedules are not guaranteed to be moved up in the program. Program needs will determine if an advanceable project is ultimately selected for advancement.

Advanceable projects should be programmed and scheduled with adequate time to deliver all activities on a desirable schedule, including real estate acquisition and utility relocations if applicable.

Not all projects are suitable as advanceable projects. Situations include, but are not limited to:

- Highway Safety Improvement Program (HSIP) projects treat specific safety concerns and are intended to be implemented as soon as possible. These projects are normally being designed on an accelerated schedule anyway so further advancement is not usually possible. However, HSIP is sometimes a component of a larger project that may be on an advanceable schedule. HSIP projects may be advanceable if the schedule allows.
- Majors projects are in their own program and scheduled according to their own needs. Majors projects may be developed on advanceable schedules but are not governed by this SWIG guidance.
- Projects with municipal involvement, such as a city-funded water or sanitary sewer component, may or may not be able to meet an advanced schedule because the municipality's portion of the project funding may be available only in a certain year.
- Every effort will be made to program projects early enough to accommodate an advanceable schedule, but it won't always be possible due to unexpected needs, rebalancing of programs, etc., or during the transition from a 6-Year program to an 8-Year program.

10.3.2.3 Reference Schedule (FIIPS/PMP)

The Reference Schedule is a deliverable of the Project Initiation Phase of the Facilities Development Process (FDP) (see FDM 3-1). It gives the user an idea of what the milestone dates would be for a "typical" project with the same improvement concept, and "Schedule Default Attributes".

Projects are loaded into PMP during the Project Initiation Phase with a "FIIPS Reference Schedule" automatically populated. This schedule consists of two milestone dates which includes the earliest PS&E date (programmed in FIIPS) and a "Project Initiation Complete" date. This is the date that the programming work has been completed and is ready to advance to the Project Definition Phase. At this point, work can begin on the Project Management Plan to develop scope, schedule and budget. The "PS&E" date is the date the project PS&E package is delivered to Central Office for final processing. The date value used in this schedule is the earliest PS&E date programmed in FIIPS which correlates to the programmed Let Schedule.

The "Project Initiation Complete" date is calculated by taking the earliest PS&E date and subtracting a default project duration based on meeting statewide schedule performance measures goals. Currently these goals are set the same for all improvement project types.

The programming engineer will review the "FIIPS Reference Schedule" and set the project "PMP Reference Schedule". The PMP Reference Schedule is calculated based on default durations, taking into account improvement concept type and typical "Schedule Default Attributes" assigned to each improvement concept. These attributes are tasks that have been identified as having the greatest impact to the project schedule. The attributes include "Prelim Scoping", "Final Scoping", "Resourcing", "R/W Plat", and "R/W Acqu". See SWIG 5-5 Attachment 15-1 *Schedule Default Attributes* for more information on default values. "Schedule Default Attributes" in the PMP Reference Schedule can be reviewed and modified by the programming engineer depending on the level of effort for the specific project. A "PMP Reference Schedule" also includes the "Final Scope Certification" and "Design Study Report" milestone dates. In addition, the programming engineer can also adjust the project duration by adding or subtracting days to the overall duration. One reason this is done is to make the project schedule "24/7" compliant. See SWIG 5-5 Attachment 15-2 *Creating a PMP Reference Schedule* for more information.

10.3.3 Setting the Program Level Budget

The programming engineer creates a Program Level Estimate for all aspects of a project. Design and construction delivery estimates and construction cost estimates are all required to program a project.

10.3.3.1 Program Level Construction Estimate

The foundation of most program level construction estimates is based on cost per mile (roadway projects) or cost per square foot (bridge projects). These types of estimates will vary depending on project type, size, rural/urban, etc.

After applying a cost per unit, any additional significant costs need to be captured if possible. Two areas that may significantly impact the project construction estimate are the following:

- Associated bridge work: Are there bridges within the limits of a roadway project that also require work?
- Traffic management during construction: This can be a significant cost on some projects but not on others. The programming engineer will need to make assumptions about how the project is likely to be constructed based on experience. Can the work be completed under staged traffic or will traffic have to be detoured? Will it be night work? Are crossovers needed? Do other bridges or segments of roadway need to be widened to carry traffic? Is barrier wall required?

10.3.3.2 Program Level Delivery Estimate

After the program level construction estimate is determined, the program delivery estimate for both design and construction is calculated based on a percentage of the construction estimate. WisDOT's Program Management Manual (PMM) contains guidance that can be used to estimate design delivery and construction delivery.

10.3.3.2.1 Design Delivery Estimate (Definition & Delivery Phases)

PMM 5-5-15 has a table that can be used to create a design estimate for the project based on project type. However, this has to be used with discretion. Overestimating the design amount ties up available funding needlessly. Underestimating the design amount may result in the project running out of funding. PeopleSoft doesn't allow overdrawing available funding. There is a process for adjusting design funding if necessary.

10.3.3.2.2 Construction Delivery Estimate (Construction Engineering)

PMM 5-5-15 has a table to estimate construction delivery/engineering based partially on type of project and partially on the construction estimate. When programming a project, use this table as given unless it would result in a very low estimate. Perhaps $20,000 could be used as a practical minimum for construction delivery. The construction delivery estimate can be adjusted throughout the project as the construction estimate fluctuates to keep it in step. The delivery estimate should be especially evaluated at PS&E to ensure it is realistic and within WisDOT guidance to avoid both overestimating and underestimating.

10.3.3.3 Real Estate Estimate

The programming engineer may know real estate acquisition is likely when programming a project but may not have enough information to develop a program level estimate. The real estate estimate can be developed and improved as more information becomes available during the Project Development Plan Phase. Non-let estimates must be entered no later than the Preliminary Impact Review Phase, but accounting for them as early as possible is beneficial for program stability.

10.3.3.4 Utility Estimate

The programming engineer may know if utility work is likely when programming a project but may not have enough information to develop a program level estimate. The utility estimate can be developed and improved as more information becomes available during the Project Development Plan Phase. Non-let estimates must be entered no later than the Preliminary Impact Review Phase, but accounting for them as early as possible is beneficial for program stability.

10.3.4 Concept Definition Report (CDR)

The Concept Definition Report (CDR) contains information about a programmed project. The purpose of the CDR is to document the initial concept that the project was programmed with and to initiate authorization to incur engineering charges.

The CDR is created by the programming engineers listed below in the References section. The CDR is sent to a distribution list after its completion. To receive the CDRs, contact Programming to be added to this distribution list.

In addition, the programming engineer will place the CDR in the project folder in Box under the "Design/Scoping" subfolder. In the SW Region, after a project has completed the Preliminary Scope Milestone, the CDR is no longer updated and the approved Project Management Plan documents the concept. See SWIG 5-5-1 "Project Checklist for Completion of Preliminary Scope Milestone".

See FDM 11-4-1 for further information on the CDR process.

10.3.5 State Municipal Financial Agreement (SMFA)

Certain projects, including connecting highways and local roads, require an SMFA be signed by the municipality before the design ID can be authorized for charging. See SWIG 6-1 for information on SMFAs.

10.3.6 Design ID Authorization

A design ID must be authorized (opened) for charging before staff time, consultant contracts, or other activities can be charged to it. Depending on how the design project is funded and whether it's located in a Metropolitan Planning Area (MPA), this can be a quick process or it may take several months. Projects funded 100% with state funds can be authorized for charging in as little as a few days. Projects utilizing federal funds and located within an MPA will take longer.

Design projects that are in MPA areas and utilize federal funds take longer to get authorized for charging because there are several steps that must be completed. These steps are outlined below with typical completion durations following in parenthesis:

- Project created and moved to LC 10 in FIIPS
- Obtain a TIP number (2 weeks to several months)
    - All projects within a MPA boundaries utilizing federal funds MUST obtain a Transportation Improvement Program (TIP) number. These TIP numbers are assigned by the individual Metropolitan Planning Organization (MPO). Each MPO meets on their own pre-determined schedule. Some meet monthly; some may only meet once or twice a year. Deadlines to get a project on their meeting agenda vary by MPO. Region planning/programming staff are responsible for this activity. After the MPO assigns a TIP number to a project, that number is entered on the TIP Information screen (F11) in FIIPS. Obtaining a TIP number can take a few weeks to several months depending on the timing of the request and the timing of the meetings.
- Obtain a STIP label (3 weeks to 7 weeks)
    - All projects with federal funding must be included in the Statewide Transportation Improvement Program (STIP) before being authorized for charging. The STIP is actually approved annually but is amended monthly (with the exception of December). For the amendment process, WisDOT scans its programs after the 19th of each month for projects at LC 10 that do not already have a STIP label or are not already authorized for charging. Projects meeting these criteria are then captured, listed, and posted to the department's website for a 15-day public comment period. After the review period is complete, FHWA applies a STIP label to the project in FIIPS on the TIP Information screen (F11).
    - This process is very time-dependent. If a project is not ready on the 19th for the STIP capture, it will not be picked up until the next month's capture. So, depending on timing, it takes a minimum of three weeks to seven weeks for a project to get a STIP label.
    - Be aware that projects in MPAs must have received a TIP number prior to being assigned a STIP label.
- Project authorization process (a few days to a few weeks)

10.3.6.1 Requesting Design ID Authorization

Typically, the programming engineer or scoping engineer will contact the programming technician requesting the design ID be authorized for charging. The programming technician moves the ID to "Review Control (RC) = F" in FIIPS. That's as far as the region has authority to move the project. Bureau of Financial Services (BFS) then moves the project to "RC = G". One of BFS's responsibilities is the effective utilization of various funding sources. Occasionally, they may ask the region if the ID can be funded differently. When an ID is moved to "RC = H", it is authorized for charging.

Timing is important. The design project needs to be authorized early enough to accommodate data gathering and analysis for the Project Management Plan Phase (Scoping process), but not so early that the project will violate the 10-year rule and risk being de-funded due to inactivity prior to construction.

25.4 References

FDM 3-1-1 Overview

Statewide PLP Charts - *link available to internal staff only*

Wisconsin Statute 84.01(33)

SWIG 5-5 Attachment 15.1 Schedule Default Attributes

SWIG 5-5 Attachment 15.2 Creating a PMP Reference Schedule

Program Management Manual (PMM) 5-5-15 - *link available to internal staff only*

FDM 11-4-1 Concept Definition Report

Metropolitan Planning Area (MPA)

Statewide Transportation Improvement Program (STIP) website

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5-1-15 Financial Integrated Improvement System (FIIPS) *Updated December 21, 2021*

15.1 Originator

Systems Planning & Operations - Planning

15.2 Introduction

The Financial Integrated Improvement Procurement System or FIIPS tracks the State of Wisconsin's efforts to plan, schedule, estimate, fund, and monitor changes to highway improvement projects. All FIIPS project information is reported by the Federal Highway Administration (FHWA). This is a planned effort, not to be mistaken with actual dollars spent, which is obtained in PeopleSoft Finance. It is WisDOT's position that information about the improvement program is of value to all employees; thus, any person can navigate to this page and view FIIPS data. Keep in mind that while WisDOT's plan to initiate a given project is a matter of public record, the specific estimate amount is not and MUST remain confidential.

15.3 Process

All projects are entered and updated in the FIIPS system by the FIIPS Coordinator with the Planning Program Manager's coordination and approvals. All improvement projects and the associated non-lets, R/E, RR, UTL, JTP, MIS, SFA, and CCO's are entered in FIIPS and tracked from design through construction. The categories on each project ID are located with the WisDOT Project Category (CAT) Locator tool. The FIIPS Life Cycle movements, estimate, and project detail updates are submitted to this contact and the program manager on the FIIPS Update Request Form as directed in PMP. Anyone can view FIIPS project information, reporting and maps by using their mainframe password to log in. When Local participation is involved, FIIPS reflects funding from the signed State Municipal Financial Agreement (SMFA). Project authorization is required on all project ID's in order to charge time. To receive authorization, all project ID's must have a Transportation Improvement Programs (TIP) number, if in a Metropolitan Planning Organizations (MPO) area, and a Federal Statewide Transportation Improvement Program (STIP) label. STIP amendments are processed each month except December. In order for project ID's to be awarded/encumbered, all PS&E's and non-let agreements must be submitted to this contact to update FIIPS. All project ID's will eventually close to charging when projects are complete. This contact will close all ID's. Region Access Control ID's are also tracked with this contact, but do not show in FIIPS.

15.4 References

FIIPS and related links:

- FIIPS - *link available to internal staff only*
- Program Management Manual (PMM) Chapter 5 - *link available to internal staff only*
- FDM Chapter 19 Plans, Specifications, and Estimates
- DOTview - *link available to internal staff only*
- WisDOT Category Locator - *link available to internal staff only*
- Host On-Demand Mainframe - *link available to internal staff only*

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